

PENDING CLAIMS AS AMENDED

Please amend the claims as follows:

1. (Currently Amended) A method for controlling discontinuous transmissions, comprising:

determining a voice activity level in a digitized audio signal;

generating a control signal based on the level of voice activity detected;

generating active vocoder frames at a predetermined rate in a transmitter if said control signal indicates a first level of speech activity;

generating inactive vocoder frames if said control signal indicates a second level of speech activity; ~~[[and]]~~

generating transition frames if said control signal indicates a transition from said first level to said second level, said transition frames comprising background noise information; and

generating a state vector corresponding to the vocoder frames, wherein the state vector is incremented only for a generated active or transition frame.

2. (Currently Amended) A method for controlling discontinuous transmissions, comprising:

receiving data frames at a receiver, said data frames comprising at least one of active, inactive or transition frame;

storing said data frames in a queue;

providing at least one of said data frames from said queue to a decryption module if available in said queue;

receiving a state vector, said state vector corresponding to the received data frames, ~~[[providing]]~~ wherein the state vector has an incremented value with respect to a preceding value only for an active or transition frame; and

decrypting ~~[[the]]~~ at least one of said data frames based on the corresponding state vector.

3. (Cancelled)

4. (Currently Amended) A discontinuous transmission controller, comprising:

a vocoder for generating active vocoder frames from a digitized audio signal at a predetermined output rate if speech is present, for generating inactive vocoder frames during periods of speech inactivity, ~~[[and]]~~ for generating transition frames during transitions from speech activity to speech inactivity, said transition frames comprising background noise

information, generating a state vector corresponding to the vocoder frames, wherein the state vector is incremented only for a generated active or transition vocoder frame.

5. (Canceled)

6. (Currently Amended) A method for controlling discontinuous transmissions, comprising:

determining a speech activity level in a digitized audio signal;

generating a control signal based on the determined speech activity level;

generating active vocoder frames in a transmitter if said control signal indicates active speech activity; [[and]]

generating no vocoder frame in the transmitter if said control signal indicates inactive speech activity;

generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity, said transition frames comprising comfort information; [[and]]

generating a state vector corresponding to the vocoder frames, wherein the state vector is incremented only for a generated active or transition frame.

7. (Previously Presented) The method of claim 6, wherein said comfort information includes background noise information.

8. (Previously Presented) A method for controlling discontinuous transmissions, comprising:

receiving digitized audio signal;

determining a speech activity level in the received digitized audio signal;

generating a control signal based on the determined speech activity level;

generating active vocoder frames in a transmitter if said control signal indicates active speech activity;

generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity;

incrementing a state vector for each generated active or transition vocoder frame;

generating no vocoder frame in the transmitter if said control signal indicates inactive speech activity; and

disabling the state vector for each inactive vocoder frame.

9. (Previously Presented) The method of claim 8, further including encrypting the generated active and transition vocoder frames.

10. (Currently Amended) A method for controlling discontinuous transmissions, comprising:

receiving encrypted vocoder frames at a receiver, said data frames comprising at least one of active[[.]] inactive, or transition frame;

storing said encrypted vocoder frames in a queue;

providing at least one of said encrypted vocoder frames from said queue to a decryption module if any is available in the queue;

providing a state vector associated with the encrypted vocoder frames provided to the decryption module, the state vector for use by the decryption module, wherein the state vector has an incremented value with respect to a preceding value only for an active or transition frame; and

decrypting the encrypted vocoder frames provided to the decryption module using the associated state vector.

11. (Previously Presented) The method of claim 10, further including:

generating comfort information if no encrypted vocoder frame was available in the queue.

12. (Previously Presented) The method of claim 11, wherein the comfort information includes background noise.

13. (Previously Presented) The method of claim 11, wherein the comfort information includes at least one recently decrypted vocoder frame.

14. (Currently Amended) An apparatus for controlling discontinuous transmissions, comprising:

means for determining a speech activity level in a digitized audio signal;

means for generating a control signal based on the determined speech activity level;

means for generating active vocoder frames in a transmitter if said control signal indicates active speech activity;

means for generating no vocoder frame in the transmitter if said control signal indicates inactive speech activity; [[and]]

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means for generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity, said transition frames comprising comfort information; and

means for generating a state vector corresponding to the vocoder frames, wherein the state vector is incremented only for a the generated active or transition frame.

15. (Previously Presented) The apparatus of claim 14, wherein said comfort information includes background noise information.

16. (Previously Presented) An apparatus for controlling discontinuous transmissions, comprising:

means for receiving digitized audio signal;

means for determining a speech activity level in the received digitized audio signal;

means for generating a control signal based on the determined speech activity level;

means for generating active vocoder frames in a transmitter if said control signal indicates active speech activity;

means for generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity;

means for incrementing a state vector for each generated active or transition vocoder frame;

means for generating no vocoder frame in the transmitter if said control signal indicates inactive speech activity; and

means for disabling the state vector for each inactive vocoder frame.

17. (Previously Presented) The apparatus of claim 8, further including encrypting the generated active and transition vocoder frames.

18. (Currently Amended) An apparatus for controlling discontinuous transmissions, comprising:

means for receiving encrypted vocoder frames at a receiver, said data frames comprising at least one of active inactive, or transition frame;

means for storing said encrypted vocoder frames in a queue;

means for providing at least one of said encrypted vocoder frames from said queue to a decryption module if any is available in the queue;

means for providing a state vector associated with the encrypted vocoder frames provided to the decryption module, the state vector for use by the decryption module, wherein the state

vector has an incremented value with respect to a preceding value only for an active or transition frame; and

means for decrypting the encrypted vocoder frames provided to the decryption module using the associated state vector.

19. (Previously Presented) The apparatus of claim 18, further including:

means for decrypting the encrypted vocoder frames provided to the decryption module using the associated state vectors; and

means for generating comfort information if no encrypted vocoder frame was available in the queue.

20. (Previously Presented) The apparatus of claim 19, wherein the comfort information includes background noise.

21. (Previously Presented) The apparatus of claim 19, wherein the comfort information includes at least one recently decrypted vocoder frame.

22. (Currently Amended) A computer-readable medium embodying means for implementing a method for controlling discontinuous transmissions, the method comprising:

determining a speech activity level in a digitized audio signal;

generating a control signal based on the determined speech activity level;

generating active vocoder frames in a transmitter if said control signal indicates active speech activity;

generating no vocoder frame in the transmitter if said control signal indicates inactive speech activity; ~~[[and]]~~

generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity, said transition frames comprising comfort information; ~~[[and]]~~

generating a state vector corresponding to the vocoder frames, wherein the state vector is incremented only for a generated active or transition frame.

23. (Previously Presented) The computer-readable medium of claim 22, wherein said comfort information includes background noise information.

24. (Previously Presented) A computer-readable medium embodying means for implementing a method for controlling discontinuous transmissions, the method comprising:

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receiving digitized audio signal;
determining a speech activity level in the received digitized audio signal;
generating a control signal based on the determined speech activity level;
generating active vocoder frames in a transmitter if said control signal indicates active speech activity;
generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity;
incrementing a state vector for each generated active or transition vocoder frame;
generating no vocoder frame in the transmitter if said control signal indicates inactive speech activity; and
disabling the state vector for each inactive vocoder frame.

25. (Previously Presented) The computer-readable medium of claim 24, the method further including encrypting the generated active and transition vocoder frames.

26. (Currently Amended) A computer-readable medium embodying means for implementing a method for controlling discontinuous transmissions, the method comprising:

receiving encrypted vocoder frames at a receiver said data frames comprising at least one of active, inactive or transition frame;

storing said encrypted vocoder frames in a queue;

providing at least one of said encrypted vocoder frames from said queue to a decryption module if any is available in the queue;

providing a state vector associated with the encrypted vocoder frames provided to the decryption module, the state vector for use by the decryption module, wherein the state vector has an incremented value with respect to a preceding value only for an active or transition frame;
and

decrypting the encrypted vocoder frames provided to the decryption module using the associated state vector.

27. (Previously Presented) The computer-readable medium of claim 26, the method further including:

generating comfort information if no encrypted vocoder frame was available in the queue.

28. (Previously Presented) The computer-readable medium of claim 27, wherein the comfort information includes background noise.

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29. (Previously Presented) The computer-readable medium of claim 27, wherein the comfort information includes at least one recently decrypted vocoder frame.